AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-41 (Canceled)

42. (Currently Amended) A multi-utility energy control and facility management system for monitoring consumption~~, and cost of resource generation~~, for a plurality of different utility types with a single master meter and for monitoring and controlling individual utility systems within a facility, the system comprising:

(a) at least one central control computer connected to a multi-utility master meter device and a plurality of individual utility consuming systems within a facility, said at least one central control computer having software adapted to:

receive utility consumption rate data from said multi-utility master meter and for storing, presenting, analyzing and reporting, from said data, information to monitor consumption rates and to compare such information to theoretical or historical data to identify unexpected changes in consumption and to identify peak demands, surges, and sags; and

control said utility consuming systems by adjusting actual utility consumption in response to predetermined parameters set for each of said utility consuming systems, said software comprising:

at least one dashboard screen and a plurality of utility subscreens relating thereto, said at least one dashboard screen including one screen which provides a plurality of utility type icons for selection of a utility from said icons, and at least two

interface gateways, each being adapted for communications with at least one network for selection of utility-facilities operations related data; and

a plurality of subscreens for presenting (i) said selectable utility information from said utility type icons and (ii) selectable utility-facility operations related data from said at least two interface gateways;

(b) a multi-utility master meter for monitoring consumption of a plurality of different utility types with a single meter, which includes a central processing unit, visual display means connected to the central processing unit, programming controls, a power source connection, and a plurality of meter sensor connections; and

(c) a plurality of utility meter sensors connected to said multi-utility master meter, at least a portion of said utility meter sensors being retrofit sensors attachable to existing utility meters for sensing real time rates from said existing utility meters, and transmitting said real time rates to said central processing unit, said plurality of utility meter sensors including utility meter sensors having means to sense real time rates from electromechanical utility meters which are attachable to conventional utility meters.

43. (Previously Presented) The system of claim 42 wherein said at least one dashboard screen includes icons for at least two utilities selected from the group consisting of electric, oil, gas, water, and steam.

44. (Previously Presented) The system of claim 42 wherein said at least two interface gateways include selection indicia for screens for at least fire and sprinkler system, power quality, electrical and lighting.

45. (Previously Presented) The system of claim 42 wherein said central processing unit comprises:

means for receiving and storing real time utility meter consumption rates data from said utility meter sensors;

means for presenting said data on a display via said visual display means in accordance with a preprogrammed sequence and in preprogrammed time frames;

means for converting said data to averages over longer periods of time based on preprogrammed parameters; and

means for presenting both real time consumption rate data and converted data to a computer in a predetermined computer language format.

46. (Previously Presented) The system of claim 42 wherein at least one of said utility meter sensors is wired directly to said central processing unit.

47. (Previously Presented) The system of claim 42 wherein at least one of said utility meter sensors is wired to a signal transmission device for transmitting signals through an alternating current line to said central processing unit and said central processing unit includes a receiver for receiving said signals from said alternating current line and inputting said signals to said central processing unit.

48. (Previously Presented) The system of claim 42 wherein at least a portion of said utility meter sensors are current transformers which transmit from about 0 to about 5 milliamps to measure electricity characteristics.

49. (Previously Presented) The system of claim 42 wherein said at least one central control computer contains software adapted to receive and update alternative utility company competitive pricing information.

50. (Previously Presented) The system of claim 49 wherein said central control computer software is adapted to provide short term utility contracts for purchase of alternative utility company competitively priced utilities.

51. (Previously Presented) The system of claim 42 wherein said multi-utility master meter includes a main housing which is physically separate from said at least one central control computer.

52. (Previously Presented) The system of claim 42 wherein said plurality of utility subscreens includes at least a portion of said subscreens having specific real time utility data and at least a portion of said subscreens having the same utility type icons as said dashboard screen to provide interconnection capability from utility to utility.

53. (Previously Presented) The system of claim 42 wherein a plurality of operational efficiency sensors, strategically located throughout the facility, are connected to said central computer to provide data for said facility management including the heating ventilating and air conditioning (HVAC) system performance, personnel ingress and egress, personnel occupancy in various areas of said facility, mechanical equipment operation and efficiency, sales, productivity, facility security, and existence of emergency situations such as fire, loss of environmental control, environmental hazards, and interruption of electric power or water service.

54. (Previously Presented) The system of claim 42 wherein said at least two interface gateways are included in said dashboard to be used for said facility management, and include said selection indicia for screens for a demand side center, a supply side center, and systems operation center.

55. (Previously Presented) The system of claim 53 wherein said central computer has software further adapted to:

receive data from said multi-utility master meter, said operational efficiency sensors, and

analyze said received sensor data and utility cost and availability data to provide information for said facility management to improve productivity and reduce operating costs including managing personnel placement and quantity in said facility and controlling personal productivity.

56. (Previously Presented) The system of claim 53 wherein said central computer has software adapted to receive data from said multi-utility master meter, said operational efficiency sensors, and to analyze said received sensor data and utility cost and availability data to provide information for said facility management to improve productivity and reduce operating costs including:

(d) tracking real time power usage and load factor and managing said facility power usage to reallocate power usage to less costly off peak times of day, and receiving electric power cost data from external sources allowing purchase of electric power at lowest cost;

(e) obtaining data for deriving lowest fuel cost based on demand and supply;

(f) regulating water usage by said facility to avoid excess usage;

(g) regulating said HVAC usage and monitoring the condition of said HVAC system to permit adequate maintenance and repair;

(h) monitoring and regulating indoor atmosphere and reacting to unhealthy atmospheric conditions;

(i) monitoring the security of said facility;

(j) operating emergency control systems.

57. (Previously Presented) The system of claim 42 wherein said software further includes a plurality of multi-site consolidation screens and supporting software to enable a user to coordinate utility information and facility management for multiple locations in real time.

58. (Previously Presented) A multi-utility energy control and facility management system for monitoring consumption of a plurality of different utility types with a single master meter and for monitoring and controlling individual utility systems within a facility, comprising:

(a) at least one central control computer connected to a multi-utility master meter device and a plurality of individual utility consuming systems within a facility, said at least one central control computer having software adapted to:

receive utility consumption rate data from said multi-utility master meter and for storing, presenting, analyzing and reporting, from said data, information to monitor consumption rates and to compare such information to theoretical or historical data to identify unexpected changes in consumption and to identify peak demands, surges, and sags; and

control said utility consuming systems by adjusting actual utility consumption in response to predetermined parameters set for each of said utility consuming systems, said software comprising:

at least one dashboard screen and a plurality of utility subscreens relating thereto, said at least one dashboard screen including one screen which provides a plurality of utility type icons for selection of a utility from said icons, and at least two interface gateways, each being adapted for communications with at least one network for selection of utility-facilities operations related data, and

a plurality of subscreens for presenting (i) said selectable utility information from said utility type icons and (ii) selectable utility-facility operations related data from said at least two interface gateways;

(b) a multi-utility master meter for monitoring consumption of a plurality of different utility types with a single meter, which includes a central processing unit, visual display means connected to the central processing unit, programming controls, a power source connection and a plurality of meter sensor connections; and

(c) a plurality of utility meter sensors connected to said multi-utility master meter, at least a portion of said utility meter sensors being integrally connected to utility meters for sensing real time rates from said utility meters, and transmitting said real time rates to said central processing unit, said plurality of utility meter sensors including utility meter sensors having means to sense real time rates from electromechanical utility meters which are attachable to outside surfaces of electromechanical utility meters by measuring magnetic flux caused by motion within said electromechanical utility meters as said electromechanical utility meters move during consumption.

59. (Previously Presented) The system of claim 58 wherein said dashboard screen includes icons for at least two utilities selected from the group consisting of electric, oil, gas, water and steam.

60. (Previously Presented) The system of claim 58 wherein said at least two interface gateways include selection indicia for screens for at least fire and sprinkler system, power quality, electrical and lighting.

61. (Previously Presented) The system of claim 58 wherein said central processing unit further comprising:

means for receiving and storing real time utility meter consumption rate data from said utility meter sensors;

means for presenting said data on a display via said visual display means in accordance with a preprogrammed sequence and in preprogrammed time frames;

means for converting said data to averages over longer periods of time based on preprogrammed parameters; and

means for presenting both real time consumption rate data and converted data to a computer in a predetermined computer language format.

62. (Previously Presented) The system of claim 58 wherein at least one of said utility meter sensors is wired directly to said central processing.

63. (Previously Presented) The system of claim 58 wherein at least one of said utility meter sensors is wired to a signal transmission device for transmitting signals through an alternating current line to said central processing unit and said central processing unit includes a receiver for receiving said signals from said alternating current line and inputting said signals to the central processing unit.

64. (Previously Presented) The system of claim 58 wherein at least a portion of said utility meter sensors are located within said utility meters.

65. (Previously Presented) The system of claim 58 wherein said at least one central control computer contains software adapted to receive and update alternative utility company competitive pricing information.

66. (Previously Presented) The system of claim 65 wherein said central control computer software is adapted to provide short term utility contracts for purchase of alternative utility company competitively priced utilities.

67. (Previously Presented) The system of claim 58 wherein said multi-utility master meter includes a main housing which is physically separate from said at least one central control computer.

68. (Previously Presented) The system of claim 58 wherein said plurality of utility subscreens includes at least a portion of said subscreens having specific real time utility data and at least a portion of said subscreens having the same utility type icons as said dashboard screen to provide interconnection capability from utility to utility.

69. (Previously Presented) The system of claim 58 wherein a plurality of operational efficiency sensors, strategically located throughout the facility, are connected to said central computer to provide data for said facility management including said HVAC system performance, personnel ingress and egress, personnel occupancy in various areas of said facility, mechanical equipment operation and efficiency, sales, productivity, facility security, and

existence of emergency situations such as fire, loss of environmental control, environmental hazards, and interruption of electric power or water service.

70. (Previously Presented) The system of claim 58 wherein said at least two interface gateways are included in said dashboard to be used for said facility management, and include said selection indicia for screens for a demand side center, a supply side center, and systems operation center.

71. (Previously Presented) The system of claim 69 wherein said central computer has software adapted to receive data from said multi-utility master meter, said operational efficiency sensors, and to analyze said received sensor data and utility cost and availability data to provide information for said facility management to improve productivity and reduce operating costs including managing personnel placement and quantity in said facility and controlling personal productivity.

72. (Previously Presented) The system of claim 69 wherein said central computer has software adapted to receive data from said multi-utility master meter, said operational efficiency sensors, and to analyze said received sensor data and utility cost and availability data to provide information for said facility management to improve productivity and reduce operating costs including:

(d) tracking real time power usage and load factor and managing said facility power usage to reallocate power usage to less costly off peak times of day, and receiving electric power cost data from external sources allowing purchase of electric power at lowest cost:

(e) obtaining data for deriving lowest fuel cost based on demand and supply;

(f) regulating water usage by said facility to avoid excess usage;

(g) regulating said HVAC usage and monitoring the condition of said HVAC system to permit adequate maintenance and repair;

(h) monitoring and regulating indoor atmosphere and reacting to unhealthy atmospheric conditions;

(i) monitoring the security of said facility;

(j) operating emergency control systems.

73. (Previously Presented) The system of claim 58 wherein said software further includes a plurality of multi-site consolidation screens and supporting software to enable a user to coordinate utility information for multiple locations in real time as well as aggregate load demand for regions.

74. (Currently Amended) A user interface for use in a multi-utility energy control system for monitoring consumption~~, and cost of resource regeneration~~, for a plurality of different utility types, the user interface comprising software executable by a computer and comprising:

~~(a)~~ a dashboard screen having a plurality of utility type icons enabled for selection of a utility ~~from said icons~~ and at least two interface gateways enabled for selection of utility-facility operations related data; and,

~~(b)~~ a plurality of subscreens that present ~~for presenting~~

~~(i)~~ said selectable utility-facility operations related data from said utility type icons and

~~(ii)~~ selectable utility related data from said at least two interface gateways ~~gateway~~.

75. (Currently Amended) The ~~system~~ user interface of claim 74 wherein said dashboard screen includes icons for at least two utilities selected from the group consisting of electric, oil, gas, water and steam.

76. (Currently Amended) The ~~system~~ user interface of claim 74 wherein said at least two interface gateways include selection indicia for screens for modules for at least fire and sprinkler system, power quality, electrical and lighting.

77. (Currently Amended) The ~~system~~ user interface of claim 74 wherein said user interface further includes a plurality of multi site consolidation screens and supporting software to enable a user to consolidate and coordinate utility information for multiple locations in real time as well as aggregate load demand for regions.

78. (Currently Amended) The ~~system~~ user interface of claim 74 wherein said at least two interface gateways include selection indicia for a screen for a supply side management center, a facility management center and a demand center.

79. (Canceled)

80. (Currently Amended) The ~~system~~ user interface of claim 74 wherein said at least two interface gateways are included in said dashboard to be used for said facility management, and include said selection indicia for screens for a demand side center, a supply side center, and systems operation center.

Claims 81 and 82 (Canceled)